

ABSTRACT OF THE DISCLOSURE

An apparatus and method for improving the brightness of a polarized display at viewing angles off of the vector normal to the display panel. The advantages of the present invention will be most pronounced when employed in applications in which the viewing angle requirements are asymmetric, such as for avionics applications that require cross-cockpit viewability of the display.

The present invention overcomes the limitations inherent in earlier designs by introducing a polarization rotation element as part of the display device to rotate the polarization of light from one orientation to another orientation. Through the use of the present invention, the axis in which the angle of sufficient off normal brightness is broadest can be reoriented to an axis that is most ideal for the particular application, thus dramatically improving the overall performance and efficiency of such displays.